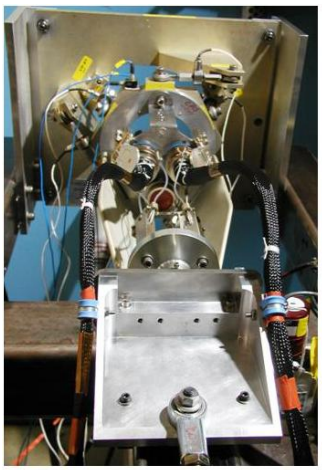
ORION
CREW EXPLORATION VEHICLE

WEEKLY ACCOMPLISHMENTS

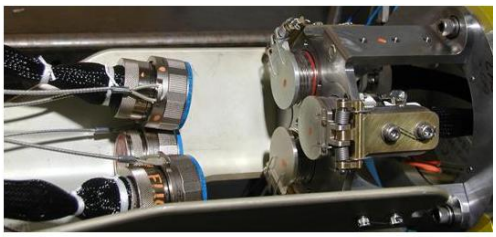
10.16.09

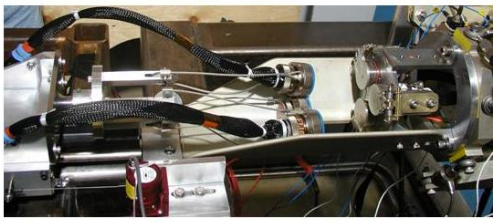
The Crew Exploration Vehicle Parachute Assembly System (CPAS) team successfully conducted a main parachute test (shown above and left) for the Orion parachute system. The test was conducted at the Army's Yuma Proving Grounds in Arizona as part of an ongoing series of tests to support the design and development of the parachute recovery system. The system is derived from the system used to recover the Apollo spacecraft. As a second test objective, two Orion main parachutes were deployed with over inflation control lines to investigate the effects on drag oscillation that causes "breathing" of the large, ring sail parachutes resulting in time varying drag performance. Engineers will study the data to see if the design modifications can be used to optimize the main parachute performance.

Pad Abort 1 hardware testing continued with the post-environmental functional verification tests for the Forward Bay Cover and Launch Abort System umbilicals (shown right.) The successful tests were the last of the planned testing prior to acceptance of this hardware by NASA.



Before





After

The heatshield base (shown above) is lowered onto the supporting cradle in the Light Manufacturing Facility (LMF) to serve as the base of the Medium Fidelity Orion Mockup. The Medium Fidelity Orion Mockup structure will be delivered to Building 9 at Johnson Space Center early in 2010 where it will continue to be outfitted for use in Human-in-the-Loop evaluations of the Orion cockpit design.

Two Lockheed Martin (LM) Orion team members recently attended the International Aerospace Conference in Korea. David McReavy of LM Washington Operations and Kat Coderre, a LM Orion engineer presented a discussion addressing career and workforce challenges and how young professionals are engaged in space exploration outreach and advocacy. They also met with NASA Administrator Charles Bolden at the event for an informal Q&A session with the young professionals (Space Generation) group (Shown Below.)